

AMENDMENTS TO THE CLAIMS

Claims 1-18. (Canceled)

19. (New) A scanning electron microscope comprising an electron source, a focusing lens for focusing a primary electron beam emitted by said electron source, and an energy filter for energy-filtering an electron emitted by a sample, the scanning electron microscope further comprising a first detector for detecting the energy-filtered electron, and a second detector for detecting a non-energy filtered electron.

20. (New) The scanning electron microscope according to claim 19, further comprising a control apparatus for calculating a ratio of an output of said first detector to that of said second detector as an energy-filtering voltage is varied.

21. (New) The scanning electron microscope according to claim 19, further comprising an accelerating tube disposed between said energy filter and said sample for accelerating said primary electron beam.

22. (New) The scanning electron microscope according to claim 19, further comprising an accelerating tube disposed between said energy filter and said sample for accelerating said primary electron beam, wherein a voltage-applying member is provided for drawing secondary electrons towards said first and second detectors in said accelerating tube.

23. (New) The scanning electron microscope according to claim 19, further comprising a negative-voltage applying power source for applying a negative voltage to said sample.

24. (New) The scanning electron microscope according to claim 19, wherein said energy filter includes a filter mesh to which a negative voltage is applied, and a shield mesh disposed between said filter mesh and said sample.

25. (New) The scanning electron microscope according to claim 24, wherein said filter mesh is located in the shade of said shield mesh when seen from said sample.

26. (New) A scanning electron microscope comprising an electron source, a focusing lens for focusing a primary electron beam emitted by said electron source, and an energy filter for energy-filtering electrons emitted by a sample, the scanning electron microscope further comprising:

a detector for detecting an energy-filtered electron;

a detector for detecting a non-energy filtered electron ; and

a control apparatus for determining whether a wire formed on said sample is normal or defective based on the output of said detectors.

27. (New) A wiring examination method for irradiating a wire formed on a sample with a primary electron beam and detecting electrons energy-filtered by an energy filter, wherein whether said wire is normal or defective is determined based on an output of a detector that detects an electron emitted by said wire as an energy-filter voltage is varied.

28. (New) The wiring examination method according to claim 27, wherein the determination is based on a change in the output of said detector as said energy-filter voltage is varied.

29. (New) The wiring examination method according to claim 27, wherein said wire is a contract wire formed in a contact hole.

30. (New) The wiring examination method according to claim 27, wherein the determination is based on a difference in the output of said detector that detects energy-filtered electron and of a detector that detects non-energy filtered electron.